

UNITED STATES PATENT AND TRADEMARK OFFICE

ENITED STATES DEPARTMENT OF COMMERCE Enited States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,935	03/01/2002	Takanobu Takeda	КОЛМ-448	4343
23599 75	590 08/17/2004		EXAM	INER
MILLEN, WHITE, ZELANO & BRANIGAN, P.C.			LEE, SIN J	
2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	A			
	Application No.	Applicant(s)			
Office Action Summany	10/085,935	TAKEDA ET AL.			
Office Action Summary	Examiner	Art Unit			
	Sin J. Lee	1752			
The MAILING DATE of this communication ap Period for Reply	opears on the cover sheet with the c	orrespondence address			
A SHORTENED STATUTORY PERIOD FOR REPITHE MAILING DATE OF THIS COMMUNICATION - Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a re - If NO period for reply is specified above, the maximum statutory perior - Failure to reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the mailine earned patent term adjustment. See 37 CFR 1.704(b).		nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).			
Status					
1) Responsive to communication(s) filed on 23 July 2004.					
· _ · · · · · · · · · · · · · · · · · ·	is action is non-final.				
,	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.				
Disposition of Claims					
 4) Claim(s) 1-36 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) 17 and 21 is/are allowed. 6) Claim(s) 1,13,14,31 and 36 is/are rejected. 7) Claim(s) 2-12,15, 16, 18-20, 22-30 and 32-35 is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. 					
Application Papers					
9)☐ The specification is objected to by the Examir 10)☒ The drawing(s) filed on <u>01 March 2002</u> is/are: Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction. The oath or declaration is objected to by the Item 11.	a)⊠ accepted or b)⊡ objected to e drawing(s) be held in abeyance. See ection is required if the drawing(s) is ob	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).			
Priority under 35 U.S.C. § 119					
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 					
Attachment(s)					
1) Notice of References Cited (PTO-892)	(PTO-413)				
 Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/0 Paper No(s)/Mail Date <u>04-02-04</u>. 	Paper No(s)/Mail Date 1	ate Patent Application (PTO-152)			

Application/Control Number: 10/085,935

Art Unit: 1752

٧.

DETAILED ACTION

- 1. The amendment filed on July 23, 2004 has been entered, and in view of the amendment, previous 102(e) rejections on claims 17 and 21 over Sato et al'705 and previous 102(b) rejection on claim 17 over Ohbayashi et al (JP'725) are hereby withdrawn.
- 2. Due to new grounds of rejection, the finality of the last Office action (mailed on April 21, 2004) is withdrawn, and the following rejections are made non-final.

Claim Rejections - 35 USC § 102

3. Claims 1, 13, 14, 31, and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhdanov et al (SU 767140 and its English abstract (Chemical Abstract - AN 1981:31895)).

The Russian document has been submitted for full English translation. Only the English abstract is available at this time.

Zhdanov teaches a copolymer of styrene and *methyl and/or phenyl-substituted monovinylcyclotri- or –tetrasiloxane* (for generic formula, see Russian document, col.3, lines 13-18; *when n=2*, it is methyl and/or phenyl-substituted monovinylcyclotrisiloxane and *when n=3*, it is methyl and/or phenyl-substituted monovinylcyclotetrasiloxane), and to this copolymer, Zhdanov grafts cyclosiloxanes in order to make a rubber-like copolymer. The copolymer of styrene and *methyl and/or phenyl-substituted monovinylcyclotri- or –tetrasiloxane* teaches present silicon-containing polymer of claim 14 because the repeat unit of *methyl-substituted monovinylcyclotrisiloxane* teaches present formula (2)-1 and the repeat unit of *methyl-substituted*

Art Unit: 1752

monovinylcyclotetrasiloxane teaches present formula (2)-2. Therefore, the prior art teaches present inventions of claims 1, 14, 31, and 36 (in the present formula (2), present R¹-R³ would be H atoms, present R⁷ would be an oxygen atom, present R⁸-R¹⁰ would be methyl group and/or aryl group, and present n would be an integer of 2 or 3). The prior art also teaches present claim 13 because present claim language does not require the silicon-containing polymer of present claim 1 to comprise the recurring unit of the formula (1); it only requires that if the silicon-containing polymer of present claim 1 happens to comprise the recurring unit of the formula (1), then the recurring unit of formula (1) has to be at least one of those formulas listed in claim 13. Therefore, since Zhdanov's copolymer comprises present recurring unit of the formula (2), the prior art still teaches present invention of claim 13.

Allowable Subject Matter

- 4. Claims 2-12, 15, 16, 18-20, 22-30, 32-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Zhdanov's copolymer of styrene and *methyl and/or phenyl-substituted monovinylcyclotri- or tetrasiloxane* does not further comprise recurring units of present formula (3) of claim 2, present formula (4) of claim 3, or present formula (5) of claim 4. Zhdanov does not teach or suggest present resist composition of claim 5, 6, or 32.
- 5. Claims 17 and 21 are allowed. As discussed above, the amendment of July 23, 2004 overcame previous 102(e) rejections on claims 17 and 21 over Sato et al'705 and

Application/Control Number: 10/085,935

Art Unit: 1752

previous 102(b) rejection on claim 17 over Ohbayashi et al (JP'725); those references do not teach or suggest those polymers listed in present claim 17 anymore.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333. The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S.J.L.

S. Lee August 12, 2004 Sin J. Lee

Page 4

Patent Examiner Technology Center